



## QUALITY TERMS FOR PURCHASE ORDERS

### QA 1.2

**The following terms apply as indicated on face of Purchase Order. In the event any term cannot be met, notify TINMAR buyer immediately.**

1. **TINMAR Source Surveillance:** Work under this order is subject to TINMAR surveillance at Seller's plant. TINMAR Quality Assurance Representatives may elect to conduct inspection either on a surveillance basis or to the extent of 100% inspection. Seller will be notified if TINMAR inspection is to be conducted on specific shipments. No shipments are to be held for TINMAR inspection unless notification is received prior to shipment of parts. Seller shall flow down all P.O. Quality requirements including key-characteristics to any level of the supply chain. Seller is responsible: for the qualification of personnel requiring certifications to perform work under this P.O., design and development control, testing, inspection, verification, use of statistical techniques and the prevention of counterfeit parts. Ensure your personnel are aware of: their contribution to product or service conformity and product safety. The importance of ethical behavior. Tinmar will monitor your performance in an effort to control the quality of the products/services offered.
2. **Reservation of Government / Customer Rights:** The Government / Customer reserves the right to inspect any or all of the materials included in this order at the applicable areas of the vendor's facilities, at any level of the supply chain, and all applicable records. Seller shall adhere to the requirements of DPAS regulation (15 CFR Part 700) ratings on P.O.'s, DFARS Clause 252.225-7002-1 Restrictions for Domestic Specialty Metals and FAR Clause Part 25.1 Buy American Act.
3. **Government Source:** Government Inspection is required prior to shipment from your plant. Upon receipt of this order, promptly notify the Government Representative who normally services your plant so that appropriate planning for Government inspection can be accomplished. The Government QAR shall also be notified a minimum of 48 hours in advance of the time articles and materials are ready for inspection or test.
4. **Certification:** One (1) legible copy of each certification document shall accompany each shipment or payment will be with held until certification is received. Certification requires signature by a responsible member of the supplier. Each certification shall identify the TINMAR Purchase Order and shall identify the items covered by the certification. Materials received without certification may be rejected and returned at vendor's expense. Military Standard Specifications will be processed to the most current revision of the specification.
5. **General Compliance:** The vendor shall provide a legible Certificate of Compliance that all materials, processes, and/or finished items supplied under this order are as specified by TINMAR Purchase Order.
6. **Specific Compliance:** The vendor shall provide a legible certified document that all parts, materials, processes and finished items supplied under this order were inspected, tested and found to comply with the requirements of this order. Inspection and test data shall be maintained and are subject to TINMAR examination. The applicable drawing and/or specification and its revision shall be referenced.
7. **Material Test Reports (Actual):** The vendor shall submit a legible actual chemical and physical test report per the applicable specification for the materials shipped under this order with actual test results from samples representative of this material.
8. **Material Test Results (Typical):** The vendor shall submit a legible chemical and physical test report for all materials shipped under this order with actual or typical test results from samples representative of this material.
9. **Raw Material Identification:** All raw material, including plate, bar, extrusion, sheet, etc. of aluminum, steel, or other material, must be identified per the applicable specification. Identification to TINMAR Purchase Order Number is also required.
10. **TINMAR/Government Furnished Material:** TINMAR or Government furnished material shall be inspected prior to the performance of activities specified in the purchase order. TINMAR shall be notified of all deficiencies/departures discovered during your receiving inspection of TINMAR furnished hardware or material. Discrepancies must be reported to the buyer.



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11. **Mil-Spec. / Supplier Part Number:** Seller's legible packing sheet and invoices are to reflect the Mil-Spec and seller's part numbers that are listed on the Purchase Order.
12. **Mil- Spec. Conformance:** Items supplied under military specifications (current revision) shall conform to the specification regarding limits of size, finish, material, component details and performance. A legible certificate of conformance is required with each shipment. The supplier shall coordinate variations or departures from the specifications with the TINMAR buyer prior to delivery of such items.
13. **Supplier Catalog Conformance:** Items supplied under the supplier's catalog number which are not controlled by a federal or military specification shall conform to the supplier's catalog description regarding limits of size, finish, material, component details and performance. A legible certificate of conformance is required with each shipment. The supplier shall coordinate variations or departures from the catalog description with the TINMAR buyer prior to delivery of such items.
14. **Inspection and Test Plan:** An inspection and test plan for control of articles furnished in accordance with the Purchase Order shall be prepared and specifically written to outline the product flow from receipt of materials through fabrication, assembly and test operations. The plan defines the inspection points throughout the manufacturing sequence and describes what, where and when inspection will be implemented to control the product. A general description of procedures and records used will be adequate. Two (2) copies of the plan shall be forwarded to the TINMAR buyer within forty-five (45) days after date of order unless otherwise specified.
15. **Quality Control Plan:** The vendor's Quality Control Manual or equivalent for conformance to applicable program specifications shall be submitted to the TINMAR buyer within thirty (30) days after receipt of order unless otherwise specified.
16. **Inspection Program (Department of Defense):** The vendor's inspection program shall be in accordance with Specifications MIL-I-45208A, "Inspection System Requirements".
17. **Inspection Program (NASA):** The vendor's inspection program shall be in accordance with NASA Quality Publication NHB 5300.4 (IC), "Inspection System Provisions for Suppliers of Space Materials, Parts, Components and Services".
18. **GE S1000 Requirement:** Products produced/acquired shall adhere to the requirements of GE Specification S1000 GE – Aviation Quality System Requirements for Supplies. GE Aviation is the end user of this product.
19. Removed.
20. **Calibration Control:** The vendor shall control the calibration of all measuring and test devices against certified standards traceable to the National Institute of Standards and Technology. The calibration must be current. The supplier may use MIL-STD-45662 or ANSI/NCSL-Z540-1 for compliance to this requirement. Compliance to MIL-STD-45662 is mandatory when MIL-Q\_9588 or MIL-I\_45208 is invoked.
21. **Process Control:** The vendor shall maintain control and approval of all manufacturing (i.e., welding, soldering, plating, painting, etc.) and inspection processes used in the performance of this order. The vendor shall maintain objective evidence of process qualification in accordance with applicable specifications. The approval status shall be subject to review and disapproval by TINMAR.
22. **Identification and Inspection Data:** One (1) copy of the item drawing or applicable catalog page shall accompany parts for receiving identification and inspection.
23. **Part Identification:** All items supplied under this order shall be identified with complete nomenclature and part numbers in accordance with MIL-STD-130 or as specified in the Purchase Order.



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24. **First Article Inspection:** The vendor shall submit a sample first article for dimensional and functional approval prior to making production item(s). The first article must be supplied with a first article inspection report and all applicable data required by purchase order. The vendor shall notify TINMAR when the item is ready for approval examination. Such examination may be conducted at the vendor's facilities or at the TINMAR receiving inspection area.
25. **General Inspection:** The supplier shall generate and maintain records and data of all inspections and tests performed. Records shall disclose the status of articles and materials and the evidence of inspections and tests performed, including dates. 100% inspections shall be performed on all critical and major characteristics and Interface Control points. Sampling plans for minor attributes shall conform to ANSI/ASQC Z1.4-1993.
26. **100% Inspection:** The supplier shall perform 100% inspection on all drawing/specification requirements on each part. The inspection record(s) shall identify each characteristic, allowable tolerance limits, the actual measurements obtained for each characteristic on each part and show objective evidence that each characteristic has been inspected. This legible data shall be submitted with each shipment of parts.
27. **Statistical Process Control:** Supplier shall validate the quality of the product using SPC techniques as defined in American National Standards Institute (ANSI) Z1.1, Z1.2 and Z1.3 or a system approved by TINMAR.
28. **Documentation Maintenance:** Tinmar shall inform the vendor of detailed requirements needed to retain objective evidence of the quality of the item supplied (manufacturing, assembly, inspection, test and special process records, etc.) for the indicated period. If indefinitely is a requirement then records cannot be destroyed without written authorization from Tin-Mar. These records shall be sufficient to prove conformance to all applicable specifications and drawings. These records shall be made available to TINMAR upon request.
  - a) One Year
  - b) Three Years
  - c) Ten Years
  - d) Indefinitely
29. **Material Safety Data Sheet: (MSDS)** required with each shipment.
30. **Critical and Limited Life Items: (Sundry Items)** Data of manufacture and/or shelf life must be supplied with each limited life item.
  - a.) Limited life items must have a minimum of 50% of shelf life remaining when received by TINMAR.
  - b.) Limited life items must have a minimum of 80% of shelf life remaining when received by TINMAR
31. **Bearing Certification:** A specific certification stating that the bearing was made in the US or Canada for all Government contracts is required.
32. **Special Process at Subtier Facility:** When special process specifications (e.g. Heat Treat, Chemical Processing, NDT, etc.) are a purchase order/drawing requirement, the supplier is responsible for maintaining a system to control special processes performed. TINMAR reserves the right to require approval and/or accomplish surveillance review or audit of all aspects of supplier's special process. Supplier is required to provide certification to the processes performed.
33. Removed
34. Removed
35. Removed
36. **Hardware Certification/Distribution:** For each item on this purchase order, the supplier shall submit a legible copy of the manufacture's certification for the hardware supplied. This certification must, as a minimum:
  - State that the hardware supplied was manufactured and accepted in accordance with applicable specification.
  - List both the ordering and procurement specifications, including revision levels.
  - Identify traceability by lot number or date code as applicable.
  - State that the manufacturer supplying the hardware is on the qualified products list for that hardware.
  - Be dated and signed by an official of the company.



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37. **Electrostatic Discharge Control:** The supplier shall be responsible for assuring that parts are procured, handled and packaged in accordance with “ESD”, DOD-STD-1686, and DOD-HDBK-263, (Class 1, 2, or 3 as applicable) to the product.
38. **Mercury Contamination:** Material furnished by the supplier shall not contain functional mercury compounds and shall be free of mercury contamination. Material furnished should not have come in direct contact with mercury or mercury compounds, nor with mercury containing devices/equipment.
39. **Packaging:** The supplier’s Quality Control organization shall be responsible for ensuring that items included in this procurement are packaged in such a manner that the dimensional integrity is preserved. Contamination and corrosion are prevented and no physical damage occurs or, when specified, that packaging is in accordance with the applicable Packaging, Handling, Storage and Transportation (PHS&T) and requirements documentation cited in and attached to the order.
40. **Non-conforming Product:** Supplier shall obtain TINMAR approval of changes in product and/or process, changes of suppliers, changes of manufacturing facility location (this requirement does not apply to commercial off the shelf COTS parts), supplier shall notify TINMAR buyer in writing of all non-conforming product and/or processes and obtain Tin-Mar’s approval for disposition of nonconformance’s. TINMAR’S customer verification activities at any level of the supply chain does not absolve TINMAR’s supplier from providing acceptable product and comply with requirements nor shall preclude subsequent rejection by TINMAR’s customer.
41. **Procurement by the supplier:** Supplier shall maintain a system to assure that Supplier procured supplies and services conform to drawing and specification requirements. Applicable quality requirements shall be conveyed to suppliers in every tier.
42. **AS9100 Quality Management System:** The supplier shall maintain a Quality System that meets the requirements of AS9100.
43. **Employee Awareness Flow Down:** The supplier/sub tier supplier shall ensure that all employees are aware of the following:
  - Their contribution to product or service conformity
  - Their contribution to product safety
  - The importance of ethical behavior